California Department of Fish and Game
Marine Resources Operations
California State Fisheries Laboratory
Terminal Island, California

Cruise Report 61S3 - Albacore

Vessel: N.B. SCOFIELD

Dates: Departed from Los Angeles Harbor, May 19, 1961.
Returned to Los Angeles Harbor, June 17, 1961.

Locality: The high seas off California and northern Baja California between Point Reyes and Cape Colnett (from latitude 30°N. to 40°N. and offshore to longitude 135°W.).

Purpose:

1. To explore this offshore area in an attempt to intercept and determine the migration route of albacore approaching the Pacific Coast fishing grounds.

2. To describe environmental conditions, relative to albacore occurrence, by collecting various physical and biological data.

Results:

1. (a) Surface trolling gear was used to fish along more than 75 percent of the 3,200-mile vessel track.

   (b) No albacore were caught and there was no evidence of their presence in the area covered.

2. (a) Sea-surface temperatures in most of the survey area were suitable for albacore.

   (b) A thermograph provided continuous records of sea temperature approximately six feet below the surface. At the surface and at 10-meters, temperatures were obtained at regular intervals with bucket and reversing thermometers. At all three near-surface depths the coolest water (53° to 54°F.) was encountered early in the survey west of San Clemente, San Nicolas and Santa Cruz Islands. Warmest temperatures (64° to 66°F.) at these depths were encountered 300 to 500 miles west of San Francisco.

   (c) One hundred forty-five bathythermograph casts to a depth of 450 feet were made at approximately 20-mile intervals throughout the survey.

   (d) Nansen bottle casts to 10-meters depth were made generally at alternate bathythermograph stations or at about 40-mile intervals. A water sample for salinity analysis and a reversing thermometer record were obtained at 81 such stations.

   (e) Weather conditions were excellent for the most part. Of 146 observations, only 6 percent showed northwest winds in excess of 20 knots.